

ABSTRACT OF THE DISCLOSURE

A high strength sucker rod coupling for use with high strength sucker rods, and methods for fabricating the coupling. The coupling is fabricated from a hardened, hollow cylindrical coupling blank. An outer surface of the coupling blank is coated with spray metal alloy, and the coated blank is heated to fuse the spray metal to the outer surface thereby forming a wear layer. This coating decrease brittleness of the wear layer, and limits cracking and subsequent stress riser effects on fatigue performance. The coupling blank is austenitized and liquid quenched to a specified hardness range. Fully cold formed threads are formed on an inner surface of the coupling blank. The fully cold formed threads maintain fatigue properties which are superior to fatigue properties obtained with partially cut, partially rolled threads on prior art high strength couplings. Fabrication methods are designed to be adaptable to current coupling manufacturing facilities, thereby minimizes modification and "start-up" costs required to manufacture the improved coupling.

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